The Role of Food Security & Economic Well-Being in Promoting Human Health

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Disclosure

- Board member of Emergency Foodshelf Network-food bank in New Hope, MN
- Conflict of interest is being managed by the University of Minnesota
Outline

- Define food insecurity/hunger
- Describe the extent of the problem
  - National/Minnesota
  - Food Access
  - Disparities
- Link food insecurity to health
- Identify initiatives and opportunities to improve conditions

Definition

- Food insecurity is the inability to access sufficient, safe, and nutritious foods in a socially acceptable way
Ranges of Food Security

1) **High food security**—Households had no problems, or anxiety about, consistently accessing adequate food.

2) **Marginal food security**—Households had problems at times, or anxiety about, accessing adequate food, but the quality, variety, and quantity of their food intake were not substantially reduced.

3) **Low food security**—Households reduced the quality, variety, and desirability of their diets, but the quantity of food intake and normal eating patterns were not substantially disrupted.

4) **Very low food security**—At times during the year, eating patterns of one or more household members were disrupted and food intake reduced because the household lacked money and other resources for food.

http://www.ers.usda.gov/Briefing/FoodSecurity/securitystatus.jpg
The Extent of The Problem

Hunger & Poverty

Prevalence of food insecurity, average 2008-10

Source: Calculated by ERS based on Current Population Survey Food Security Supplemental data.
Trends in prevalence rates of food insecurity and very low food security in U.S. households, 1995-2010

Prevalence rates for 1996 and 1997 were adjusted for the estimated effects of differences in data collection screening protocols used in those years.


Prevalence of food insecurity, 2010

Food Insecurity in the U.S.

- 14.5% households were food insecure
  - 14.7% metro 14.2% rural
  - 90% of consistently poor counties are rural

- In 2007, about 13% of households were “food insecure without hunger” at some time during the year
  - 32.6 million people, 12.4 million children (16.9% of all children)

Food Insecurity in Minnesota

- 48 U.S. ranking
- 10.3% or 1 in 10 households were food insecure (2010)

Food shelf visits at record high:

- Need is 20% higher than 2010
- Doubled since 2005; Tripled since 2000

Hardest hit:

- 8th District (Northeast corner-Duluth, Brainerd, Baxter)
- 5th District (Minneapolis and suburbs)
- 4th District (Ramsey, Washington, Dakota Counties)
The Missing Meals Report

- In Minnesota alone, 125 million meals are missing every year.
- That’s the equivalent of every low-income man, woman and child in Minnesota missing 10 meals per month.

Hunger in MN Preschool Children

- Random sample of licensed providers in MN (n=468)
- How often do you see a child who does not appear to be getting enough food to eat at home?
  - Rarely 32% (148 programs)
  - Sometimes 16% (73 programs)
  - Often 4% (18 programs)
  - Very often/Always 0.4% (2 programs)
- Center's reported more hunger (28% vs 8%)
Snapshot of Minnesota Schools

Self-report “sometimes or often not getting the kinds of foods we want”

Middle Schools
- Coon Rapids - 40% in afterschool homework program
- Northdale - 40%

High Schools
- Burnsville - 23%
- Northfield - 21%
- John Marshall - 27%
- Mayo - 32%
- 2-3% prefer not to answer

Poverty & Hunger

- Poverty and hunger are not the same
  - Hunger among households with income below the poverty level is 35-40%
  - Annual income doesn’t capture job loss, divorce, unexpected events
Poverty in Minnesota

- 10.9% live in poverty
  - more than 1 in 10 or 506,233 residents
- 13.7% under 18 years live in poverty
- 7.1% live in 9 county metro
  - 1 in 14 or 260,812 residents

- 18.1% increase in MN households enrolled in SNAP 2010-2011

- Nationally 15.1% or 46.2 million people-4th consecutive annual increase and largest number in 52 years of published data

The Extent of The Problem

Food Access & Poverty
Economic Influences

- Food prices have risen
  - Rice up 55%
  - Potatoes up 41%
  - Bananas up 24%
  - Eggs up 60%
  - Grocery bills rose 7.5% from 2007 to 2008
  - Fastest rate in 18 years

Inequity in rise of food prices

Income Rankings
- 1=High income ($167,525) versus 5=Low income ($10,579)

- 6% versus 32% of income spent on food

- $38 more per month for food than 2005 versus $126 (high versus low income)
Cost of meeting 2010 DGA Goals

- $380 a year more for an average consumer to adhere to the 2010 Dietary Guidelines for Americans
- Potassium, fiber, vit D and calcium
- Each time 1% more of daily calories came from saturated fat or added sugar - food costs declined!
- Current food production and distribution system is effective in providing calories, but not as good in supplying nutrients

Monsivais, 2011 Health Affairs

USDA 2009 Study

- Supermarkets and large grocery stores have lower prices than smaller stores.
- Access to a supermarket or large grocery store is a problem for a small percentage of households.
- 11.5 million people, or 4.1 percent of the total U.S. population, live in low-income areas more than 1 mile from a supermarket.
Disparities

- Urban areas with limited food access have higher levels of racial segregation and greater income inequality.
  - 31% of whites and 8% of blacks live within 1 mile of a supermarket
  - Low income areas had half of the supermarkets of wealthy areas

- Small-town and rural areas with limited food access lack of transportation infrastructure.
  - 20% of rural counties live more than 10 miles from a supermarket (418 counties)

Access & Behavior

- For every additional supermarket, produce consumption increased 32% for blacks and 11% for whites

- Rural “food desert” counties residents were 23% less likely to consume fruits and vegetables

- Adults living in neighborhoods with supermarkets and grocery stores had lower rates of obesity (21%) and overweight (60-62%) while those with access to convenience stores and small grocery stores had much higher rates (32-34% obesity and 73-78% overweight).

The evidence is clear that predominantly low-income, urban communities of color and rural areas lack adequate access to healthy food, and the lack of access negatively impacts the health of residents and neighborhoods.
http://www.ers.usda.gov/data/fooddesert/

The Consequences

Linking Hunger & Health
Consequences

- Food insecurity damages the early development and learning of children and the health of children and adults.
- It harms adult productivity.
- It damages the economy and the fiscal health of states and local governments.

Chronic Disease

Associations between food insecurity and...
- Hypertension, hyperlipidemia, diabetes
  - 2x increased risk for diabetes in very low food-secure households and higher A1c values
- Eating in the presence of stress

IOM Hunger and Obesity: Understanding a Food Insecurity Paradigm: Workshop Summary (2011)
Are Hunger & Obesity Linked?

- Among children? Probably not
- Among adults?
  - Modest positive association among obese women (of color)
  - Negative association among men

Summary: Hunger, Poverty & Obesity

- Obesity and poverty are associated, and food insecurity and poverty often coexist.

- Easy access to all food, rather than lack of access to specific healthy foods, may be a more important factor in explaining increases in obesity.

- Reducing poverty and stress in the U.S. would likely lead to reductions in childhood obesity, but reducing food insecurity alone would not necessarily have this effect.

IOM Hunger and Obesity: Understanding a Food Insecurity Paradigm: Workshop Summary (2011)
Opportunities to Intervene

Hunger, Access, Poverty
Direct Services

- Adults
  - Dial 211 United Way first line of defense
  - Supplemental Nutrition Assistance Program (formerly Food Stamp Program)
- Pregnant Women and Children
  - Women, Infants, and Children (WIC)
  - School Meal Programs
  - Summer Food Service Programs, Afterschool Snack and Supper Programs
- Older Adults
  - Meals on Wheels

Federal Legislation

- Federal goal: to end hunger by 2015
- Healthy, Hunger-Free Kids Act of 2010
  - “strengthen and expand”
  - Update and improve benefit levels
  - Too low
  - Streamline eligibility/enrollment/services
  - Improve nutrition standards across federal food assistance meal programs
- School Meal Programs
- Child and Adult Care Food Program
The Healthy Food Financing Initiative

- $400 million a year for innovative financing for “food deserts”
  - Add grocery stores and farmer’s markets
  - Encourage healthier foods in convenience stores and bodegas
- New market tax credits, grant programs and technical support
- Corporate sponsorship

Controversial Legislation

- No soda purchases with SNAP benefits
  - Precedence with WIC preapproved foods
  - Social justice

- Taxes on food
  - 13 states: yes
**Innovative Food Banks**

“Once were emergency programs ---Now are sustaining programs”

- Multi-cultural mobile food shelf
  - ~1000 West/East African, Latino monthly food packages through 5 community partners
- Lost Harvest
  - Local, regional and nonUS farm pick ups
- Fare For All (open to all)
  - 71,506 food packages sold (214,518 people) at 40% below retail prices offered at 84 targeted locations
- Nutrition standards policy

**Translational Research**

1) School Breakfast Programs
   - Easy access to school breakfast
2) Afterschool Snack Programs
   - Added a healthy snack to homework program
3) Pack it Up!
   - Provided healthy “backpack” to English as Second Language and summer school students/families

In every case, improvements were seen for low SES students
Where is the breakdown?

- Upstream
  - Less at the individual level and much more at the policy- and environmental-levels
- Contributes to access, behavior and health disparities
- The greater the disparity, the more legitimate the demand for political focus and funding.

Thank you & Questions

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